

Notes on *Carex* subgen. *Vignea* (Cyperaceae) from China

ZHANG Shu-Ren LIANG Song-Yun

(Institute of Botany, the Chinese Academy of Sciences, Beijing 100093, China)

Abstract *Carex leporina* L. (Cyperaceae) is reported as a new record to China. The species was found from Burqin, Xinjiang. Its morphological description and line drawings are presented. The species is closely related to *C. maackii* Maxim. by having gynaeandrous spikes and glumaceous bracts, but differs in shorter inflorescence and fewer spikes. These two species belong to *Carex* L. subgen. *Vignea* sect. *Ovales*.

Key words *Carex leporina*, Cyperaceae, new record, China.

During the course of preparing a taxonomic treatment of the genus *Carex* L. (Cyperaceae) for Flora of China, we found a specimen of *Carex leporina* L. collected from Burqin, Xinjiang. It is a new record to China. In Flora Reipublicae Popularis Sinicae Vol. 12 (Liang, 2000) and Flora Xinjiangensis Vol. 6 (Cui, 1996), this species was not included.

***Carex leporina* L.**, Sp. Pl. 2: 973. 1753; Kükenthal in Engl. Pflanzenr. 38: 210. 1909, p. p.; Egorova, Sedges Russ. Adjacent. States 534, f. 68-1. 1999.

C. ovalis Good. in Trans. Linn. Soc. London (Bot.) 2: 148. 1794; Chater in Fl. Europ. 5: 300. 1980; Mastrogiuseppe et al. in Fl. N. Amer. 23: 353. 2002.

Root and rhizome unseen. Culms slender, 50–80 × 0.08–0.1 cm, trigonous, smooth below, rough in upper part, leafy near base. Leaves 3–4, flat, ca. 1.5 mm wide, much shorter than culm, margin rough. Inflorescence 2–2.5 × 0.8–1.3 cm; bracts glumaceous, the lowest long-awned; spikes 4–7, ovate to oblong, 0.5–1 × 0.3–0.6 cm, gynaeandrous, contiguous, sessile. Female glumes ovate, ca. 3 × 1.5 mm, acute, yellowish-brown, with pale-yellow midrib and broadly hyaline margins, 1-nerved. Utricles ovate, 3.5–4 × 1–1.5 mm, plano-convex, light brown, smooth, 4–6-nerved abaxially, narrowly winged from shoulder to top, margin rough near top, spongy-thickened below; beak ca. 1 mm, deeply bifid abaxially. Nutlet obovate-oblong, ca. 2 × 1 mm, flatly bi-convex, brown, smooth, slightly shiny, shortly beaked and stipitate. Stigmas 2. Fr. Aug.

China. Xinjiang (新疆): Burqin (布尔津), Lake Kanasi (喀纳斯湖), alt. 1400 m, 2003-08-08, L. Guo & H. C. Zhang (郭林 张虎成) 2128 (PE).

For the purpose of the retention of Linnaean name *C. leporina*, Egorova (1999) lectotyped the name. Thus, *C. leporina* L. becomes the correct name for the species, although *C. ovalis* Good. is a more familiar name and used in Flora Europaea (Chater, 1980) and Flora of North America (Mastrogiuseppe et al., 2002). This species is closely related to *C. maackii* Maxim. by having gynaeandrous spikes and glumaceous bracts. The differences between the two species are listed in Table 1.

C. leporina and *C. maackii* belong to sect. *Ovales* (Kunth) Christ. The section is the largest one in subgen. *Vignea* (P. Beauv. ex Lestib.) Kükenth., with about 80 species, 70 occurring only in North America, the others in Europe, temperate zone of Asia, in North and South America and North Africa (Egorova, 1999). In Flora Reipublicae Popularis Sinicae Vol. 12,

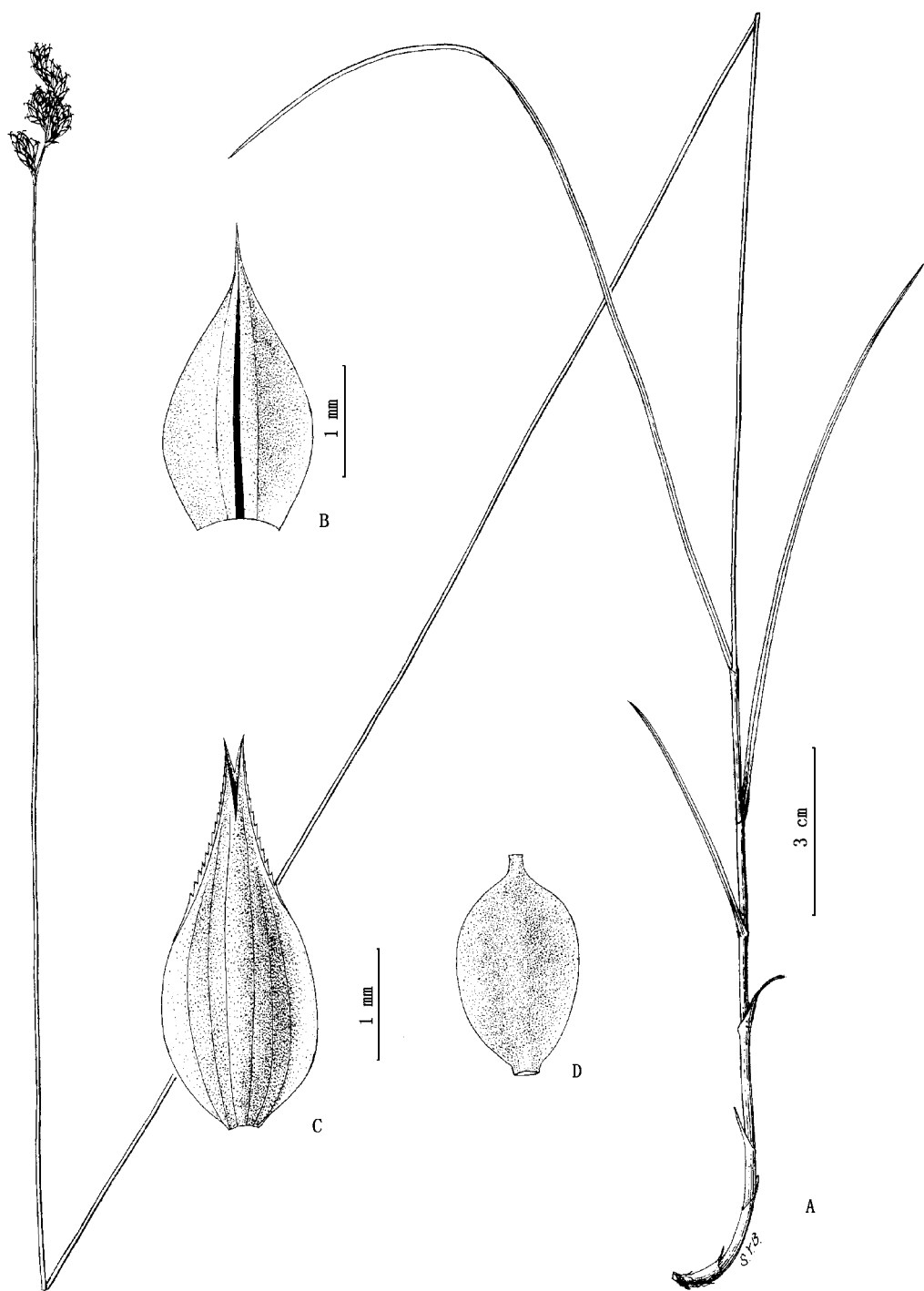


Fig. 1. *Carex leporina* L. A , habit ; B , female glume ; C , utricule ; D , nutlet. Drawn by Y. B. Sun from L. Guo & H. C. Zhang 2128.

Table 1 Differences between *Carex leporina* and *C. maackii*

	<i>Carex leporina</i>	<i>C. maackii</i>
Culms	0.8 – 1 mm wide , leafy near base	1.5 – 2 mm wide , leafy from middle part to base
Leaves	3 – 4 , much shorter than culms , ca. 1.5 mm wide	More than 4 , equaling or slightly shorter than culms , 2 – 5 mm wide
Inflorescence	2 – 2.5 cm	2.5 – 6 cm
Spikes	4 – 7 , contiguous	10 – 14 , distant
Distribution	Algeria , China (Xinjiang) , Europe (except the Arctic and extreme south) , North America , West Siberia	China (Northeast , Central and East) , Japan , Korea , Russia (Far East region)

C. maackii was misplaced in sect. *Planatae* (Liang , 2000) , which is obviously different from sect. *Ovales* by having long leafy bracts. Sect. *Ovales* should be a distinct section in subgen. *Vignea* . There are only two species of the section in China.

Key to species of sect. *Ovales* in China

1. Inflorescence 2.5 – 6 cm ; spikes 10 – 14 , distant **Carex maackii**
1. Inflorescence 2 – 2.5 cm ; spikes 4 – 7 , contiguous **C. leporina**

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中国藁草属二柱藁草亚属(莎草科) 增补

张树仁 梁松筠

(中国科学院植物研究所 北京 100093)

摘要 报道了发现于新疆布尔津的一个中国新记录种——卵形藁草 *Carex leporina* L. ,提供了其形态描述和线描图。该种因具有雌雄顺序的小穗和鳞片状的苞片而与卵果藁草 *C. maackii* Maxim.近缘 ,但花序较短、小穗较少而与后者不同。这两种植物隶属于藁草属二柱藁草亚属卵形藁草组 subgen. *Vignea* sect. *Ovales*。

关键词 卵形藁草 ; 莎草科 ; 新记录 ; 中国